

RECORDS AND DESCRIPTIONS OF NON-SALTATORIAL ORTHOPTERA FROM
BRITISH GUIANA.

BY JAMES A. G. REHN.

The records given in the following pages are all from a collection of Orthoptera made in 1901 at Demerara, British Guiana, by R. J. Crew, and for the privilege of studying which the author is indebted to Prof. Lawrence Bruner. The series contained sixty-one specimens, representing thirty-four species, of which six are new. The types are in Prof. Bruner's collection.

BLATTIDÆ.

ANAPLECTA Burmeister.

Anaplecta pulchella n. sp.

Type: ♀; Demerara, British Guiana, 1901. (R. J. Crew.)

Closely allied to *A. mexicana* Saussure and *dohrniana* Saussure and Zehntner, but differing from *mexicana* in the narrowly incised supra-anal plate, the more angulate proximal portion of the appendicular field of the wings, and in some details of the coloration. From *dohrniana* it differs in the wings, in the coloration and somewhat in the shape, but agrees in the shape of the supra-anal plate.

Size rather large (for the genus); form rather flattened and sub-elliptical; surface glabrous. Head about completely hidden under the pronotum; interspace between the eyes almost twice the depth of one of the eyes; antennæ sparsely haired. Pronotum transversely ovate, the cephalic margin regularly arcuate, caudal margin very slightly arcuate, lateral margins rounded obtuse-angulate; disk somewhat deflected laterad. Tegmina exceeding the apex of the abdomen, sub-lanceolate with the costal margin slightly arcuate except proximad where it is rather strongly arcuate, sutural margin straight, apex acute; basal field small, sub-coriaceous; anal field elongate sub-pyriform in shape and containing four veins; costal veins thirteen in number, the interspaces between the distal ones supplied with short spurious veins which do not coalesce with the discoidal vein; median vein with four rami of which the second (enumerating proximo-distad) is bifurcate. Wings with the appendicular field of medium size, sub-rectangulate with the margins rounded and the proximal angle decidedly obtuse:

clavate costal veins seven in number, the clavation being very large and short, in fact decided inflations, non-clavate costals five in number, distad of the clavate ones; medio-discoidal area with quadrate interspaces; axillary vein with one principal branch diverging caudad, which latter has two rami. Supra-anal plate transverse, rounded with a slightly median emargination; subgenital plate not reaching to the apex of the supra-anal plate, inflated and with the caudal section compressed and narrowly divided, reminding one of the structure of the valves of the Blattinae. Femora with their ventral margins spined.

General color tawny above; head ochraceous with a pattern of four transverse and one short longitudinal occipital bars of seal brown, eyes seal brown, antennae ochre yellow proximad and dull brownish distad. Pronotum with the disk seal brown and the lateral portions hyaline, the disk broad caudad narrowing cephalad. Tegmina of the general color with a spot in the anal field, a more prominent one at the base of the discoidal field and another rounded one near the middle of the discoidal field raw umber. Wings very slightly washed with olive, except the sections adjacent to the proximal portion of the costal margin and the caudal section of the inserted angle of the appendicular field, which are washed with ochre yellow. Ventral surface and limbs pale clay color, margined, lined and touched with mummy brown.

Measurements.

| | |
|---------------------------------------|---------|
| Length of body, | 7.6 mm. |
| Length of pronotum, | 2.2 " |
| Greatest width of pronotum, | 3 " |
| Length of tegmen, | 8 " |
| Greatest width of tegmen, | 2.5 " |

The type is the only specimen seen.

Anaplecta fulgida Saussure.

Two males, two females.

Two of the above specimens belong to the form of the species with the disk of the pronotum dark, both sexes being represented. The tegmina in these dark specimens are somewhat darker than in the other individuals.

This species has been recorded from Tabasco, Mexico, Guatemala and Piedras Negras, Costa Rica, this constituting the first South American record.

PSEUDOMOPS Serville.

Pseudomops crinicornis (Burmeister).

One male, one female.

While these specimens would, by their uniform black antennæ, fall

under *luctuosa* (Saussure), the original description of *crinicornis* contains nothing at variance with the material examined, no mention being made of the antennæ, while the median whitish spots on the tegmina are distinctly specified. It would appear from the description that the form described as *crinicornis* by Saussure and Zehntner¹ is not the *crinicornis* of Burmeister. Whether *luctuosa* is distinct from *crinicornis* is a matter which cannot be settled here, the two having already been synonymized.

The specimens studied show that the male is more uniformly colored than the female, the pronotum being without a light caudal margin and the median tegminal spots are absent, while the pale border of the coxæ and ventral abdominal segments are much narrower than in the female.

PSEUDOPHYLLODROMIA Brunner.

Pseudophyllodromia pavonacea Rehn.

1903. *Pseudophyllodromia pavonacea* Rehn, Trans. Amer. Ent. Soc., XXIX, p. 262. [Bartica, British Guiana.]

One male.

This specimen is inseparable from the type with which it has been compared.

Pseudophyllodromia fasciatella Saussure.

Three males, one female.

These specimens agree perfectly with a series of sixteen individuals from Bartica, British Guiana.

Pseudophyllodromia obscura Saussure.

1874. *Pseudophyllodromia obscura* Saussure, Mém. Soc. Phys. et d'Hist. Nat. Genève, XXIII, p. 98. [Brazil.]

Four females.

These specimens agree well with the description except that the disk of the pronotum is red-brown overlaid with blackish instead of maroon brown as described.

Pseudophyllodromia prona n. sp.

Types: ♂ and ♀; Demerara, British Guiana. 1901. (R. J. Crew.)

Allied to *P. peruana* and *lincolata* Saussure, and differing from the former in the strongly lined interocular space, the color of the face and the coloration of the tegmina, the pale portions of the latter being small maculations and not whole areas. From *lincolata* it differs in the maculation of the pronotum, the general color of the head and the smaller tegminal markings. No other species of the genus appears to be any way as closely related as the two mentioned above.

¹ Biol. Cent.-Amer., Orth., I, p. 33.

Size medium; form as in other species of the genus but slightly broader. Head considerably exerted, the eyes rather prominent, the interspace between them not as wide as the depth of the eye in either sex; antennæ filiform, very sparsely haired, in length very considerably exceeding the length of the body. Pronotum transverse sub-elliptical, cephalic margin with an extremely slight median angulation; caudal margin distinctly but not greatly angulate, the margin laterad of the angulation slightly emarginate; lateral margins arcuate producing slightly lateral cephalic and caudal angles; surface of the disk with two impressed areas, one on each side, extending caudo-laterad from about the caudal fourth of the pronotum; lateral portion of the pronotum considerably depressed. Tegmina with the venation prominent; costal margin arcuate on the proximal half, about straight with a hardly perceptible emargination in the distal half, sutural margin with two arcuations, one of the anal field, the other of the remainder of the tegmen; apex narrowly rounded; basal field narrow, limited to about the proximal third; anal field elongate-obovate, the anal sulcus more impressed in the male than in the female; costal veins thirteen to sixteen in number, rami of the median vein all longitudinal. Supra-anal plate of the male shorter than the subgenital plate, cerci over twice the length of the subgenital plate, moniliform, tapering from the middle, subgenital plate rather short, transverse, the apex narrow and shallowly emarginate. Supra-anal plate of the female shorter than the subgenital plate, cerci similar to those of the male, subgenital plate flat, the apical margin with a deep, very narrow median incision. Femora spined.

General colors clove brown and pale ochre yellow. Head with three median, longitudinal, closely placed, parallel ochre yellow lines on the interocular space, the face with five transverse maculations of the same color, the dorsal one a complete fine line, the second, between the antennæ, a broadly V-shaped mark, the third a row of four sub-circular maculations, the fourth, on the clypeal suture, a thick, narrowed mesad line, the fifth a simple line across the clypeus; eyes walnut brown; antennæ strongly infusate except a brief ferruginous proximad section. Pronotum with the disk clove brown, a narrow median line and the lateral section pale ochre yellow, a spot on the caudal section of the pale lateral sections clove brown; caudal margin narrowly pale. Tegmina with the base color deep brownish, the basal field and interspaces between the veins of the anal area and between the costal veins and two spots in the proximal section of the discoidal field, one in the very narrow proximal section and the other just distad of it, pale

ochre yellow. Limbs ochre yellow marked with clove brown, the caudal broadly lined dorsad, and the tibiae infusate distad.

Measurements.

| | ♂ | ♀ |
|---------------------------------------|---------|--------|
| Length of body, | 9.2 mm. | 10 mm. |
| Length of pronotum, | 3 " | 3 " |
| Greatest width of pronotum, | 3.9 " | 4 " |
| Length of tegmen, | 9.6 " | 10.5 " |
| Greatest width of tegmen, | 3 " | 3 " |

The types are unique.

ISCHNOPTERA Burmeister.

Ischnoptera nyctiboroides n. sp.

Type: ♀; Demerara, British Guiana. 1901. (R. J. Crew.)

Belonging to the group containing *I. azteca*, *tolteca*, *nana* and *parvula*, but differing from all in the larger size, and apparently from most of them in the comparatively large intercalary area of the wings.

Size rather large; form robust, general form and coloration superficially reminding one of a *Nyctibora*; surface glabrous, but not with a very high polish. Head not hidden by the pronotum, the occipital margin evenly arcuate, interspace between the eyes slightly wider than the depth of one of the eyes; mandibular palpi with the distal joint elongate-elliptical when viewed dorsad, the ventral surface excavate for the entire length. Pronotum of the shape usually found in *Ischnoptera*, the cephalic margin sub-truncate, the caudal margin sub-truncate with an extremely slight median angulation, lateral margins slightly arcuate, the greatest width caudad; lateral sections somewhat depressed, the disk without depressions. Tegmina extending beyond the tip of the abdomen by about two-thirds the length of the pronotum; costal margin evenly arcuate; sutural margin straight except in the distal fourth, where it is obliquely diverted toward the apex which is in the general curve of the costal margin and rounded acute-angulate in character; basal field not extensive; anal field elongate-obovate, the apex blunt; veins of the anal area seven in number, the costal veins very numerous, discoidal field with the veins distinctly longitudinal. Wing with the greatest width contained slightly more than one and one-half times in the length; costal veins about eleven in number excluding the branches of the mediastine vein, the majority being distinctly but not at all greatly thickened near the margin; discoidal vein with a caudal ramus diverging near the middle anterior ulnar vein with two complete and about two incomplete rami;

intercalary area rather small but distinct, extending about a sixth the way to the base of the wing, the apical margin of the area very gently obtuse-angulate. Supra-anal plate transverse, somewhat produced mesad and very narrowly emarginate; cerci about equal to the subgenital plate in length, tapering in the distal half; subgenital plate somewhat transverse, the distal margin arcuate, not emarginate and not distinctly excavated for the cercal bases. Cephalic femora armed on the ventro-cephalic margin, with about five large spines placed mesad and a number of slightly smaller ones distributed between the larger spines and the distal extremity; median and cephalic femora with the ventral margins armed.

General color vandyke brown, narrow lateral areas on the pronotum and the basal areas of the tegmina ochre yellow. Head uniform except for the antennæ, the regions of their insertion and the clypeus which are dull ochraceous. Pronotum with the median area very dark, almost seal brown, the lateral light areas being connected by a thread of the same color, which extends around the cephalic margin. Tegmina almost ochraceous-rufous when viewed by reflected light, the area of the right tegmen covered by the left being vandyke brown. Wings washed with vandyke brown, the anterior field with the suffusion very strong, the color being quite solid around the costal veins. Abdomen with the segments margined with seal brown, a broad bar of the same color paralleling the lateral margins and suffusing the subgenital of the preceding plate. Limbs ochraceous, the coxæ each with two transverse bars of seal brown connected along the lateral sulcus of the coxa by a longitudinal bar of the same color.

Measurements.

| | |
|---------------------------------------|----------|
| Length of body, | 17.6 mm. |
| Length of pronotum, | 4.3 " |
| Greatest width of pronotum, | 6 " |
| Length of tegmen, | 17 " |
| Greatest width of tegmen, | 5.2 " |

The type is the only specimen seen by the author.

BLATTELLA Caudell.

Blattella minor (Brunner).

1865. *Phyllodromia minor* Brunner, Nouv. Syst. Blatt., p. 94. [Brazil.]

One male.

This specimen fits Brunner's description of this species, except that the bars on the pronotum are fairly well separated, while Brunner says "linea separanti tenuissima."

Blattella inexpectata n. sp.

Type: ♀; Demerara, British Guiana. 1901. (R. J. Crew.)

In general appearance this form resembles *B. parana* (Walker) from Para, but it is larger with a richer coloration and with the caudal margin of the pronotum more arcuate. In some respects this species resembles the *vitrea-dilatata-pavida* group but is more slender, bearing a considerable superficial resemblance to *Ischnoptera blattoides*.

Size medium; form moderately depressed, elongate-elliptical; surface glabrous. Head almost entirely covered by the pronotum, narrowest portion of the interspace between the eyes slightly less than the depth of one of the eyes; antennæ well separated at the bases, in length extending caudad to the distal extremity of the caudal coxæ. Pronotum moderately transverse, ovate, narrow, cephalic margin subtruncate, caudal margin moderately arcuate with an extremely slight median angulation, lateral margins arcuate with the greatest width very slightly caudad of the middle; lateral sections moderately depressed. Tegmina slightly exceeding the apex of the abdomen, the greatest width contained slightly more than three times in the length; costal margin arcuate, the arcuation of the proximal third much greater than that of the remainder of the margin; sutural margin nearly straight, very obliquely truncate in the apical fourth where it turns to meet the narrowly rounded apex; basal field narrow and covering slightly more than a third of the length of the tegmen; anal field obovate in shape and about equalling the basal field in length; costal veins about fourteen in number, median vein with four rami, the distal of which has four branches, some of which has the branching carried two stages farther; anal area with five veins. Wings with the costal veins numbering about nine, the majority of the veins being distinctly incrassate distad; anterior ulnar vein bearing three complete rami. Supra-anal plate trigonal with a rather large median emargination; cerci about equal to the subgenital plate in length, fusiform; subgenital plate moderately inflated, somewhat tectate, apical margin shallowly emarginate, well marked cereal sinuations present. Cephalic femora armed on the ventro-cephalic margin with four large median and one large distal spine, the intervening area filled with fine comb-like spines. Median and caudal femora with the ventral margins spined.

General color ochraceous, becoming ochraceous-rufous on the disk of the pronotum and the section of the tegmina which when in repose cover the body. Eyes bistre; lateral sections of the pronotum and costal section of the tegmina translucent ochre yellow, the section of the left tegmen which in repose is covered by the right is very pale,

nearly buff in color. Wings strongly washed with ochraceous; limbs pale ochraceous.

Measurements.

| | |
|---------------------------------------|--------|
| Length of body, | 13 mm. |
| Length of pronotum, | 3.5 " |
| Greatest width of pronotum, | 4.2 " |
| Length of tegmen, | 11.3 " |
| Greatest width of tegmen, | 3.8 " |

The type is unique.

NYCTIBORA Burmeister.

1838. *Nyctibora* Burmeister, Handb. d. Entom., II, Abth. II, pt. I, p. 501.

Included *N. crassicornis*, *sericea*, *holosericea* and *latipennis* Burm. Kirby has selected *sericea* as the type.

Nyctibora tomentosa (Serville)?

1839. *Blatta tomentosa* Serville, Orthoptères, p. 86. [Surinam.]

Two males.

These specimens show some few characters at variance with the original description, but agree with the description of a female given by Saussure.² Walker's *tenebrosa* from Demerara appears to be a rather different insect.

PARATROPES Serville.

Paratropes subsericeus Saussure.

1864. *Paratropes subsericeus* Saussure, Mém. l'Hist. Nat. Mex., 3me Mém., p. 63. [Surinam.]

One female.

This specimen is referred to *subsericeus* instead of *elegans* Burmeister, of which the former has been considered a synonym. The description of *elegans*, although very brief, does not fully fit the specimen in hand, while that of *subsericeus* fully describes the individual examined. The author does not assert that the two are distinct species, but Saussure's name represents the type examined and Burmeister's does not.

EPILAMPRA Burmeister.

Epilampra abortivipennis Rehn.

1903. *Epilampra abortivipenna* Rehn, Trans. Amer. Ent. Soc., XXIX, p. 273. [Bartica, British Guiana.]

One female.

The type of this species was erroneously described as a female, a re-examination showing it to be a male.

² Miss. Scient. Mex., Orth., p. 69.

The female is larger and bulkier than the male, but is otherwise very similar. The supra-anal plate of the female is transverse, rounded and with a moderately deep V-shaped median emargination, the cerci are about equal to the supra-anal plate in length, subequal in the proximal half, tapering in the distal half, supra-anal plate large, moderately inflated, cercal sinuations slight, the apical margin arcuate.

Measurements of Female.

| | |
|---------------------------------------|--------|
| Length of body, | 26 mm. |
| Length of pronotum, | 6.5 " |
| Greatest width of pronotum, | 8.3 " |
| Length of tegmen, | 18.5 " |
| Greatest width of tegmen, | 6.5 " |

Epilampra lucifuga Rehn.

1903. *Epilampra lucifuga* Rehn, Trans. Amer. Ent. Soc., XXIX, p. 271
[Southern British Guiana.]

Three males, one female.

The female is slightly larger than the type specimen, but otherwise the series is perfectly typical of the species.

The supra-anal plate of the male is rather produced, trigonal and fissate mesad with the incision a mere slit to very near the apex; cerci about half again the length of the subgenital plate, tapering in the distal two-thirds; subgenital plate not reaching the caudal margin of the supra-anal plate, trigonal, supplied with lateral styles nearly a third the length of the cerci.

Measurements of Male.

| | |
|---------------------------------------|----------|
| Length of body, | 22.5 mm. |
| Length of pronotum, | 5.5 " |
| Greatest width of pronotum, | 6.5 " |
| Length of tegmen, | 21.2 " |
| Greatest width of tegmen, | 6 " |

Epilampra maculicollis (Serville).

1839. *Blatta maculicollis* Serville, Orthoptères, p. 92. [Brazil.]

One male, one female.

The base color of these specimens is maize yellow, and between the eyes the head bears dorsad a pair of tapering spots of mummy brown, ventrad a blotch of seal brown, which has laterad short bars of the same color extending ventrad between the antennæ. The pronotum is very finely sprinkled with, and the delicate pattern traced, in vandyke brown, while the tegmina have the discoidal and anal areas very thickly flecked with large and small spots of burnt umber, the basal and costal regions being comparatively clear with only small spots.

Epilampra fusca Brunner.1865. *Epilampra fusca* Brunner, Nouv. Syst. Blatt., p. 170. [Venezuela.]

One female.

As far as can be determined from Brunner's description, which was based on a mutilated specimen, this individual appears to represent the species.

The color pattern is rather regular and typical of the genus, the maculations of the tegmina being uniformly distributed but larger in the discoidal field, while the whole insect has a strong suffusion of raw sienna. The head bears two spots of seal brown between the eyes, these spots being connected by a line of the same color which encloses a quadrate area between the antennæ.

Measurements.

| | |
|---------------------------------------|----------|
| Length of body, | 41.5 mm. |
| Length of pronotum, | 9.2 " |
| Greatest width of pronotum, | 11.5 " |
| Length of tegmen, | 38.5 " |
| Greatest width of tegmen, | 12 " |

PERIPLANETA Burmeister.**Periplaneta australasiæ** (Fabricius).

One male, two females.

CHORISONEURA Brunner.**Chorisoneura gracilis** (Saussure).1862. *Blatta gracilis* Saussure, Revue et Magasin de Zoologie, 2e ser., XIV, p. 167. [Brazil.]

One damaged specimen.

PYCNOSCELUS Scudder.**Pycnoscelus surinamensis** (Linnaeus).

Two females.

One individual is quite uniform blackish above, with the cephalic margin of the pronotum laterad and the marginal field of the tegmina ochraceous.

PANCHLORA Burmeister.**Panchlora viridis** (Fabricius).1775. [*Blatta*] *viridis* Fabricius, Syst. Entom., p. 272. [America.]

One male.

This species has previously been recorded from Cayenne.

Panchlora peruana Saussure.1864. [*Panchlora*] *Peruana* Saussure, Revue et Magasin de Zoologie, 2e ser., XVI, p. 342. [Peru.]

One male, two females.

The female individuals differ somewhat in size, but both appear referable to this species.

Measurements of Females.

| | | |
|---------------------------------------|----------|----------|
| Length of body, | 20.4 mm. | 21.5 mm. |
| Length of pronotum, | 5.2 " | 6 " |
| Greatest width of pronotum, | 6 " | 7.3 " |
| Length of tegmen, | 19.5 " | 22.6 " |
| Greatest width of tegmen, | 5.2 " | 6.5 " |

HOLOCOMPSA Burmeister.

Holocompsa nitidula (Fabricius).

1781. [*Blatta*] *nitidula* Fabricius, Spec. Ins., I, p. 345. [Surinam.]

Two females.

These specimens have a dark brown patch on the caudal section of the disk, and the caudal margin of the pronotum is narrowly suffused with the same color. This pattern of coloration is evidently present in the type of Fabricius as he states: "Thorax ferrugineus, nitidus macula baseos nigra." The golden hairs which are present on the lighter sections of the pronotum are also distributed over the brown area.

Holocompsa cyanea Burmeister.

Two males.

This species has been recorded from Brazil by Brunner.

BLABERUS Serville.

Blaberus posticus Erichson.

1848. *Blabera postica* Erichson, in Schomburgk's Reisen Brit. Guiana, III, p. 580. [British Guiana.]

One female.

This specimen is the first of a number of individuals of this section of the genus examined by the author, which appears to fit Erichson's very poor description. The pronotal maculation is confluent laterad with the blackish caudal margin. This character appears to be what Erichson refers to in "Der Halsschild mit spitzer gerundeten Seiten, auf dem Rücken mit einigen kleinen, unbestimmten schwarzen Flecken, dagegen der Hinterrand breit schwarz gesäumt." The figure of *B. thoracicus* given by Saussure and Zehntner represents very nearly the same thing, but a specimen from Costa Rica which I had considered *thoracicus*³ has these lateral bars lacking. Kirby's synonymizing of

³ *Proc. Acad. Nat. Sci. Phila.*, 1905, p. 792.

the two species would appear, from the evidence in hand, to be correct. The author's *B. biolleyi*⁴ differs from *posticus* in the paler coloration, the more numerous and finer veins of the anal area of the tegmen and the separate and distinctly outlined maculations of the pronotum.

MANTIDÆ.

ACONTISTA Saussure.

Acontista perspicua (Fabricius).

1787. [*Mantis*] *perspicua* Fabricius, Mant. Insect., I, p. 230. [Cayenne.]

One male, one female.

This species is known only from the Guianas.

Angela guianensis n. sp.

Types: ♂ and ♀; Demarara, British Guiana. 1901. (R. J. Crew.)

Closely allied to *A. quinquemaculata* (Stoll) from Cayenne, but differing in the coloration of the wings in both sexes, particularly in the absence of yellow in the male, and also in the short tegmina and wings of the female. From *brachyptera* (Stoll) it can be separated by the unspined margins of the caudal section of the pronotum and the tuberculate abdomen, as well as the color of the wings of the male. The coloration of the wings of *fulgidata* and *trifasciata* readily separates the new form from these species.

Size rather large; form as usual in the genus, male bacilliform with elongate tegmina and wings, female elongate with quite short tegmina and wings; surface smooth but not polished.

♂. Head strongly transverse, occipital outline straight except for a pair of slight lateral depressions; eyes prominent, ovoid in outline when viewed laterad, rounded and projecting slightly cephalad of the general level of the face but nearly plane caudad; ocelli large, elliptical, placed in a low, broad triangle; facial scutellum arcuate transverse, the arcuation dorsad; antennæ as long as the head and pronotum together, moderately serrulate. Pronotum with the coxal dilation slight, subequal cephalad and caudad of the same; lateral margins of the collar distinctly dentate, of the shaft slightly dentate cephalad, smooth caudad; median carina distinct throughout the length of the pronotum but quite delicate on the collar, the shaft compressed trigonal in section. Tegmina slightly longer than the head and pronotum, when in repose reaching nearly to the tip of the third abdominal segment; margins subparallel, apex rounded acute-angulate, the sutural margin being considerably trimmed toward the apex; costal field moderately expanded proximad and very gradually narrowing distad;

⁴ *Ibid.*, p. 792.

ulnar vein with three almost parallel rami, stigma distinct. Wings exceeding the tegmina by about a third the length of the pronotum, slightly longer than twice the width; costal margin nearly straight, apex rather narrowly rounded. Cephalic coxæ slightly less than half the length of pronotum, not armed; cephalic femora about five-eighths the length of the pronotum, the ventro-caudal margin bearing four large and one small distal spines, the ventro-cephalic margin armed with two grades of spines, the larger size numbering six and the smaller eight, the smaller being placed one each between the larger spines, except that distad of the distal large spine two small ones are present and between the first and second distal spines three are present, discoidal spines four in number; cephalic tibiæ (exclusive of terminal claw) less than a third the femoral length, the cephalic margin with sixteen spines increasing in size distad, caudal margin with five spines; tarsi about equal to the tibiæ in length. Median and caudal limbs very slender but not greatly elongate, the caudal femora not quite reaching the middle of the third abdominal segment.

General color Prout's brown. Tegmina hyaline washed narrowly along the sutural margin (distad of the dividing vein) and very broadly along the costal margin with Prout's brown, the greater portion of all the longitudinal veins being marked with numerous fine linear seal brown touches. Wings with proximal half hyaline, the apex of the anterior field yellowish coriaceous, the remainder vandyke brown with very strong violet reflections, this coloration also extending nearly to the base as a varying line along the mediastine vein, the caudal section of the broad transverse bar extending clear to the margin, and broken only by less infusate areas immediately surrounding the radiate veins and the clear pattern of the transverse veins.

♀. Head much as in the male, facial scutellum slightly less arcuate; antennæ very short, hardly exceeding the length of the collar of the pronotum, filiform. Pronotum with the collar nearly a fifth the length of the whole pronotum, coxal dilation slight; collar slightly tapering cephalad, the cephalic angle narrowly rounded and with an apparent elevation caused by a marked depression of the collar immediately caudad; lateral margins of the collar dentate, shaft with the margins unarmed; median carina distinct on the collar and on the cephalic and caudal sections of the shaft, collar trigonal in cross section, shaft rounded dorsad. Tegmina about a fifth the length of the pronotum, reaching in repose to about the middle of the first abdominal segment, margins very slightly approximate distad; apex broadly rounded, stigma distinct. Wings in repose extending beyond the tegmina by not quite a third

the length of the latter, the length but slightly greater than the length of the tegmen. Abdomen with the apex broad, depressed, the three terminal segments with very distinct median longitudinal marginal folds; supra-anal plate about as long as broad, the distal portion rounded; cerci broad, lamellate and truncate as usual in the genus; subgenital plate strongly compressed, rostrate, diverted ventrad out of the general abdominal plane. Cephalic coxæ slightly less than half the length of the pronotum, slightly armed, distal section expanded and compressed, being abruptly trigonal in section, while the proximal three-fourths is transverse in section; cephalic femora slightly more than half the length of the pronotum, the margins armed as in the male except that the cephalic margin has one or two additional spines of the second order; tibiæ and tarsi as in the male. Median and caudal limbs slender but not greatly elongate.

General color tawny-olive finely washed, spotted and sprinkled with Prout's brown; eyes marked with seal brown. Pronotum with the two colors showing very distinctly in a pattern which is pardaline in character, the shaft with its cephalic fifth inclined toward bistre. Tegmina tawny-olive in the proximal half, becoming brick red in the distal half, the costal section Prout's brown, some of the rami of the ulnar vein and the dividing vein with short fine linear touches of bistre, the folded proximal section blackish purple. Wings with the anterior field broccoli brown, yellowish along the costal margin and rich brick red in the distal third; posterior field with the base color purplish brown with a very strong purplish-blue sheen, bearing two irregular maculations of lemon yellow, limited to about the cephalic half of the field and each bearing distad an area of equal size of the clear base color of the area, the whole wing except these areas and the semi-coriaceous red section of the anterior field having all the transverse veins white or yellowish-white. Abdomen of the general color; limbs of the general color with the pardaline appearance distinctly marked on the median and caudal limbs.

Measurements.

| | ♂ | ♀ |
|---------------------------------------|-----------|--------|
| Length of body, | 67.5+ mm. | 88 mm. |
| Length of pronotum, | 25 " | 36.5 " |
| Greatest width of pronotum, | 2.3 " | 3 " |
| Length of tegmen, | 28.5 " | 13.9 " |
| Length of wing, | 34 " | 13.5 " |
| Length of cephalic femur, | 14.8 " | 20.3 " |

The types are the only specimens seen by the author.

PHOTINA Burmeister.

1838. *Photina* Burmeister, Handb. d. Ent., II, Abth. II, pt. I, p. 531.

Type, by elimination, *P. vitrea* Burm.

Photina vitrea Burmeister.

1838. *M[antis] (Photina) vitrea* Burmeister, Handb. d. Entom., II, Abth. II, pt. I, p. 532. [Brazil.]

One female.

PARAMUSONIA Rehn.**Paramusonia conspersa** (Saussure).

1870. *Th[espis] conspersa* Saussure, Mitth. Schw. Ent. Gesell., III, p. 238. [South America.]

* One male, one female.

Apparently this is the first record of the species with exact data. This form can be separated from the allied *P. infumata* (Serville) by the finely denticulate lateral margins of the pronotum.

MIOPTERYX Saussure.**Miopteryx grenadensis** Saussure.

Two males.

CALLIBIA Stål.

1877. *Callibia* Stål, Bihang till K. Svenska Vet. Akad. Handl., IV, No. 10, pp. 79, 85.

Type.—*Harpax pictipennis* Serville=*Mantis diana* Stoll.

Callibia diana (Stoll).

1813. [*Mantis*] *Diana* Stoll, Natuur. Afbeeld. Besch. Spoken, pp. 74, 78, pl. XXV, fig. 100. ["East Indies."]

One male.

This species has been recorded from Cayenne.

OXYOPS Saussure.

1869. *Oxyops* Saussure, Mitth. Schw. Ent. Gesell., III, pp. 56, 66.

Type.—*O. rubicunda* (Stoll).

Oxyops rubicunda (Stoll).

1813. [*Mantis*] *Rubicunda* Stoll, Natuur. Afbeeld. Besch. Spoken, pp. 73, 79, pl. XXV, fig. 96.

One male.

This specimen has the internal face of the cephalic coxæ unicolor as in one of the males examined by Saussure.

PARASTAGMATOPTERA Saussure.**Parastagmatoptera tessellata** Saussure and Zehntner.

1894. *Parastagmatoptera tessellata* Saussure and Zehntner, Biol. Cent.-Amer., Orth., I, p. 188. [Cayenne.]

One male.

PHASMIDÆ.

CEROYS Serville.

1839. *Ceroys* Serville, Orthoptères, p. 262.Type.—*C. perfoliatus* (Gray).*Ceroys lituus* n. sp.

Type: ♀; Demerara, British Guiana. 1901. (R. J. Crew.)

Not closely allied to any previously known species of the genus, differing in the absence of spines and in the lobation of the median and caudal femora. This species may not be true *Ceroys*, but it does not belong to any of the present allied genera.

Size median; form moderately robust; surface smooth, not polished, unarmed. Head rather long, subequal caudad of the eyes, occiput with a faint median longitudinal impressed line and several very weak ones laterad; eyes subglobose, moderately prominent; antennæ filiform, about equal to the head and thorax in length, the proximal joint depressed. Pronotum nearly half again as long as broad, the lateral margins somewhat incurved, cephalic margin moderately concave, caudal margin arcuate, transverse depression distinct, arcuate caudad, median longitudinal depression very faint and incomplete. Mesonotum five and a half times the length of the pronotum, a distinct dorsal line present but no carina. Metanotum (including median segment) about five-eighths the length of the mesonotum, the median segment very distinctly longer than broad and exceeding the length of the remainder of the metanotum. Abdomen distinctly exceeding the remainder of the body in length; four proximal joints simple, longitudinal and very slightly increasing in length distad; fifth segment expanded meso-caudad, in length about equal to the fourth segment; sixth segment simple, slightly shorter than the first proximal segment; seventh segment two-thirds the length of the sixth, somewhat expanded caudad; eighth segment slightly shorter than the seventh; ninth segment shorter than the eighth, compressed, carinate dorsad, narrowly emarginate caudad; supra-anal plate with the angulate tip alone visible; cerci compressed, tapering, blunt, the length about two-thirds that of the ninth dorsal segment; subgenital opercule boat-shaped, carinate in the distal half, lanceolate, acute, not exceeding the tips of the cerci. Limbs multicarinate, robust. Cephalic femora about as long as the mesonotum, compressed, basal flexure very marked and abrupt, the two prominent dorsal and single ventral carina lamellate-carinate; cephalic tibiæ about equal to the femora in length and with three lamellate carinæ; tarsi with the proximal joint slightly longer than the remaining joints. Median femora slightly shorter than the metanotum, the two

ventral lamellate carinæ each with a prominent proximal and distal rounded foliaceous lobe, the dorso-cephalic carina also with a low proximal lobe; median tibiæ about as long as the femora, the ventral carinæ lamellate, but no lobes present; median tarsi with the proximal joint about equal to the remaining joints. Caudal femora as long as the proximal two and a half abdominal segments, in structure similar to the median but with the dorsal lobe even smaller; caudal tibiæ slightly longer than the femora, in structure similar to the median tibiæ but slightly slenderer; caudal tarsi with the proximal joint distinctly but not greatly longer than the remaining joints.

General color Prout's brown obscurely marked on the head and limbs with bistre, the femoral lobes and extremities of the median and caudal tibiæ decidedly bistre; antennæ wood brown sprinkled with the general color.

Measurements.

| | |
|---|---------|
| Length of body, | 101 mm. |
| Length of pronotum, | 4.5 " |
| Length of mesonotum, | 24.5 " |
| Length of metanotum (including median segment), | 16 " |
| Length of cephalic femur, | 22.5 " |
| Length of median femur, | 14 " |
| Length of caudal femur, | 17.3 " |

The type is unique.

OLCYPHIDES Griffini.

Olcypoides fasciatus (Gray).

1835. *P[hasma] fasciatum* Gray, Synopsis Phasm., p. 24. [Brazil.]

One female (sex ?).

This individual is broken, but I presume it is a female. The original description, while very brief, sums up the chief diagnostic characters of the species.